

REMARKS

This is in response to the Office Action dated March 30, 2005. In the Office Action, claims 1-5 were rejected and claims 6-20 were allowed. With this Amendment, claims 3, 5 and 6 are amended and the remaining claims are unchanged in the application. Applicants thank the Examiner for allowing claims 6-20. Applicants respectfully request reconsideration and allowance of pending claims 1-5.

I. DRAWING AND CLAIM OBJECTIONS

In section 3 of the Office Action, the Examiner objected to the drawings. Specifically, the Examiner stated that "the claimed servo bands having a pitch at least as large as the largest pitch of the data storage tracks as set forth in claims 3 and 5, and the servo band density at a pitch that is at least as great as a pitch of the normal track density as set forth in claim 6 must be shown or the feature(s) canceled from the claim(s)." Further, in section 4 of the Office Action, the Examiner objected to claims 3, 5 and 6, essentially suggesting that, due to the inclusion of the above language, these claims do not particularly and distinctly point out that regarded as the invention. With this Amendment, the above language in claims 3, 5 and 6 has been amended to reflect (in accordance with the embodiment shown in FIG. 3 and the Examiner's statements regarding FIG. 3) that the servo bands are recorded at a density that is greater than the density of the data tracks. Therefore, the drawing and claim objections should be withdrawn.

II. CLAIM REJECTIONS UNDER 35 U.S.C. §102

In section 6 of the Office Action, claims 1, 2 and 4 were rejected under 35 U.S.C. §102(b) as being anticipated by Albrecht et al., U.S. Patent No. 5,999,351. In section 7 of the Office Action, claims 1-5 were rejected under 35 U.S.C. §102(e) as being anticipated by Golowka et al., U.S. Patent No. 6,052,250.

In a response filed on October 25, 2004, Applicants

explained that the cited references essentially describe selecting an appropriate head based on a specified/predefined track density for a disc surface, which is in contrast with the claimed invention that includes a head "having a width defining a maximum track density." In response to the Applicants statements, the Examiner suggests, in section 8 of the final Office Action, that selecting an appropriate head for a desired density is the same as the head width defining the maximum track density, because it is the width of a given head that directly limits the width of the recording tracks and the number of tracks that can be recorded in a given area. Applicants disagree with the Examiner's position.

Applicants respectfully point out that disc drive magnetic heads were manufactured to specifications based on the track width, and hence the TPI (Tracks Per Inch) for the drive. Typically, the width of the write head was about 80% of track pitch and the width of the read head was about 40-50% of track pitch. As the track pitch became more dense, the recording heads became correspondingly smaller, and existing manufacturing tolerances produced larger variations between the widths of the read and write transducing portions of the head. Consequently, the worst-case head width had to meet the minimal requirements for maximum width and minimal track density specified for the drive. As a result, a greater percentage of heads were "out of spec," meaning they did not meet the minimal requirements for the disc drive, thereby raising the costs for heads. Moreover, the heads that exceeded the specifications were not used to their full capability. (Page 1, line 22 to page 2, line 8 of the Specification).

To overcome the above problems, claim 1 includes "a plurality of head/surface combinations each including a moveable storage surface containing adjacent data storage tracks . . . , the head having a width defining a maximum track density between adjacent data storage tracks." (Emphasis Added). Allowing the head

width to define the maximum track density, instead of selecting/rejecting heads based on a specified/predefined track density, permits, for example, use of different track densities for different head/surface combinations in a given multi-surface disc drive as long as the overall storage capacity requirements of the data storage device are met. This introduces flexibility into the minimum qualification requirements for heads and therefore can result in more heads that would normally exceed specifications being utilized to their full capability.

From the foregoing, it is clear that selecting/rejecting heads based on a specified/predefined track density (or using only those heads with widths that maximize track densities), which the cited references disclose, is different from, and does not result in the same head/surface combinations or track densities as, the invention of claim 1. Therefore claim 1 is believed to be patentably distinct and non-obvious over the cited references.

Applicants respectfully submit that dependent claims 2-5 are also allowable over the cited references by virtue of their dependency, either directly or indirectly, from allowable independent claim 1. Further, the dependent claims 2-5 set forth numerous elements not shown or suggested in the cited references.

In view of the foregoing, Applicants respectfully request reconsideration and allowance of all pending claims. Favorable action upon all claims is solicited.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By:

Alan G. Rego
Alan G. Rego, Reg. No. 45,956
Suite 1600 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 339-3312

AGR:tkj